

REMARKS

In the Office Action, claims 20-22 were rejected under 35 U.S.C. § 102(e) and § 102(b) as being anticipated by Cheng et al., US patent application publication 2003/0001575 A1 and by Cheng et al., PCT publication WO 01/53847 A1 respectively. Claims 1-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Cheng et al., US patent application publication 2003/0001575 A1 and WO 01/53847 A1. The specification and the drawings were objected to due to certain informalities.

Claim 20 has been amended and claim 23 has been added. No new matter has been added. The specification has been amended to overcome the informality mentioned in the Office Action.

Upon entry of the amendments, claims 1-23 will be pending in this application. Reconsideration and allowance of all pending claims in light of the amendments and the following remarks are requested.

Objection to the Specification

The specification was objected to because of certain informalities in paragraph [0027] and paragraph [0030]. Paragraph [0027] and paragraph [0030] have been replaced to obviate the objections raised in the Office Action. No new matter has been added. The replacement paragraphs are believed to obviate all of the objections raised by the Examiner. Review and acceptance of the replacement paragraphs are requested.

Rejections under 35 U.S.C. § 102

Claims 20-22 were rejected under 35 U.S.C. § 102(e) as being anticipated by Cheng et al., US patent application publication 2003/0001575 A1. Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. Applicants respectfully assert that the present invention, as claimed in amended independent claim 20, is patentable over the Cheng reference. Claim 20 is

amended to clearly define the claimed subject matter intended by that claim, by adding “radially”. The Cheng reference does not disclose each element of the present invention as claimed in amended independent claim 20.

In particular, the Cheng reference does not teach, disclose or suggest the claimed “means of shaping the magnetic field positioned radially inside the means for generating the magnetic field”. In direct contrast to the invention as recited in claim 20, the Cheng reference, as in paragraphs [0016] and [0031], teaches the shaping of the magnetic field using pole plates comprising a plurality of wedge shaped elements. Nowhere does the Cheng reference teach, disclose or suggest any means for shaping the magnetic field positioned radially inside the means for generating the magnetic field.

Therefore, the present invention, as claimed in amended independent claim 20 is not anticipated by the Cheng reference. Claims 21-22 depend directly or indirectly from claim 20. Accordingly, applicants submit that claims 21-22 are allowable by virtue of their dependency from an allowable base claim, as well as for this subject matter they separately recite. Thus, it is respectfully requested that the rejection of Claims 20-22 under 35 U.S.C. §102(e) be withdrawn.

Claims 20-22 were also rejected under 35 U.S.C. § 102(b) as being anticipated by Cheng et al., PCT publication WO 01/53847 A1. Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. As discussed above, claim 20 is not anticipated by the Cheng reference, WO 01/53847 A1. The arguments aforesaid for US patent application publication 2003/0001575 A1 are equally valid for WO 01/53847 A1.

Therefore, the present invention, as recited in amended independent claim 20, and claims 21 and 22 is not anticipated by the Cheng reference (either the published

U.S. application or the published international application). Thus, it is respectfully requested that the rejection of Claims 20-22 under 35 U.S.C. §102(b) be withdrawn.

Rejections under 35 U.S.C. § 103

Claims 1-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Cheng et al., US patent application publication 2003/0001575 A1 and WO 01/53847 A1. For a *prima facie* case of obviousness, the Examiner must set forth the differences in the claim over the applied reference, set forth the proposed modification of the reference, which would be necessary to arrive at the claimed subject matter, and explain why the proposed modification would be obvious. The Cheng reference does not teach, suggest or disclose each and every element of Applicants' recited invention as claimed in independent claims 1 and 17.

In particular, the Cheng reference does not teach, disclose or suggest Applicants' coil structure for shaping the magnetic field. The Cheng reference, as indicated in paragraphs [0016] and [0031], teaches the shaping of a magnetic field using pole plates comprising plurality of *wedge shaped elements*. Even if the elements are initially formed as a laminate of coiled metal, Cheng is exceedingly clear that the resulting structure is then *segmented into wedges*—no longer forming a coil at all. Because the laminated structure is segmented, it cannot be considered a coil. Indeed, the reference clearly states that the wedges are cut and *insulated from one another* by an epoxy specifically to prevent eddy currents from flowing between the wedges. See Cheng, paragraph 0039. Clearly, the resulting pole plates do not act as a coil. Nowhere does the Cheng reference teach, suggest or disclose shaping the magnetic field via *shaping coils* as described in Applicants' present invention, and as recited in independent claims 1 and 17.

Moreover, the reference provides no suggestion or motivation whatsoever for modifying the structure taught to provide field shaping coils. On the contrary, the wedged shaped pole plates are taught by Cheng to be entirely sufficient for field generation

and shaping. Given the sufficiency of this solution, according to Cheng, it would be superfluous and unnecessary to effect any change at all so as to provide a structure like that claimed. Indeed, the reference should be considered to teach away from the claimed structure inasmuch as it teaches that the wedges of the pole plates should be insulated from one another. Such motivation or suggestion could only come from the instant application, which of course is unavailable to support a *prima facie* case of obviousness.


Applicants conclude that the Examiner has thus failed to establish a *prima facie* case of obviousness of claims 1-19. Therefore, the present invention, as claimed in independent claims 1 and 17 is patentable. Claims 2-16, and 18-19 depend directly or indirectly from claim 1 and claim 17, respectively, and are allowable by virtue of such dependency, as well as for the subject matter they separately recite. Thus, it is respectfully requested that the rejection of Claims 1-19 under 35 U.S.C. §103(a) be withdrawn.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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